

What is claimed is:

1. A feed apparatus for use in depositing a slurry upon
a moving web having a direction of travel, comprising:
5 a main metering roll;
a companion roll disposed in closely spaced relation to said
metering roll to form a nip therebetween;
said nip constructed and arranged to retain a supply of the
slurry; and
10 means for driving said rolls so that slurry retained in said nip
progresses over an upper outer peripheral surface of said metering roll to
be deposited upon the web.
2. The apparatus of claim 1 further including at least
15 one sidewall disposed closely adjacent respective ends of said rolls for
forming a slurry reservoir above said nip.
3. The apparatus of claim 2 wherein said sidewalls are
made of a non-stick material.
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4. The apparatus of claim 1 wherein said metering roll
has a relatively larger diameter than said companion roll.
5. The apparatus of claim 1 wherein said metering roll
25 and said companion roll have one of a stainless steel peripheral surface
and a resilient, non-stick peripheral surface.

6. The apparatus of claim 1 further including a thickness control roll disposed in close operational proximity to said metering roll for controlling the thickness of the slurry layer deposited upon the web by said apparatus.

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7. The apparatus of claim 6 wherein said thickness control roll is located above said metering roll.

8. The apparatus of claim 6 wherein said metering roll and said companion roll rotate in the same direction and further wherein said thickness control roll rotates in the same direction as said metering and companion rolls.

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9. The apparatus of claim 6 wherein said thickness control roll has a diameter substantially smaller than said metering roll.

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10. The apparatus of claim 1 further including a reciprocating slurry delivery mechanism constructed and arranged for providing slurry to said nip.

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11. The apparatus of claim 10 wherein said delivery mechanism includes a conduit carrying connected to a source of slurry and having an end in close proximity to said nip, said conduit end being engaged in a reciprocating mechanism which laterally reciprocates said conduit end between ends of said metering and companion rolls.

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12. The apparatus of claim 11 wherein said reciprocating mechanism includes a fluid powered cylinder and a cable-pulley.

13. The apparatus of claim 1 further including a stripping
wire disposed adjacent a lower portion of said metering roll for preventing
slurry from progressing upon an underside of said metering roll towards
5 said nip.

14. The apparatus of claim 1 wherein said rolls are
disposed generally transversely to the direction of travel of the web.

10 15. A feed apparatus for use in depositing a slurry upon
a moving web having a direction of travel, comprising:
a main metering roll;
a companion roll disposed in closely spaced relation to said
metering roll to form a nip therebetween, said rolls being disposed
15 generally transversely to the direction of travel of the web;
said nip constructed and arranged to retain a supply of the
slurry;
a thickness control roll disposed in operational relationship
to said metering roll for controlling thickness of a layer of slurry drawn
20 from said nip upon an outer surface of said metering roll; and
means for driving said metering roll, said companion roll and
said thickness control roll in the same direction.

16. The apparatus of claim 15 wherein said direction of
25 rotation is towards the direction of travel of the moving web.

17. The apparatus of claim 15 further including at least one sidewall disposed closely adjacent respective ends of said rolls for forming a slurry reservoir above said nip.

5 18. The apparatus of claim 15 wherein said metering roll has a larger diameter than said companion roll, and said companion roll has a larger diameter than said thickness control roll.

10 19. The apparatus of claim 15 further including a stripping wire disposed adjacent a lower portion of said metering roll for preventing slurry from progressing upon an underside of said metering roll towards said nip.

15 20. A feed apparatus for use in depositing a slurry upon a moving web having a direction of travel, comprising:
a main metering roll;
a companion roll disposed in closely spaced relation to said metering roll to form a nip therebetween, said rolls being disposed generally transversely to the direction of travel of the web;
20 said nip constructed and arranged to retain a supply of the slurry;
a pair of sidewalls located adjacent ends of said metering and companion rolls to form a slurry reservoir;
a thickness control roll disposed in operational relationship
25 to said metering roll for controlling thickness of a layer of slurry drawn from said nip upon an outer surface of said metering roll;

means for driving said rolls in the same direction so that
slurry retained in said nip progresses over an upper outer peripheral
surface of said metering roll to be deposited upon the web; and

5 a reciprocating slurry delivery mechanism for providing
slurry to said reservoir.